



In re Appln. of Kawakami et al. U.S. Patent Appln. No. 09/073,138 Art Unit: 1642 Confirmation No. 7367 Docket No. 218757 Sheet 1 of 9



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629

599

AGTGTTAAAATTTTAGTAGGTCCGCTAGCA GTACTAATCATGTGAGGAAATGATGAGAAA

480 ATCTAATGTTCTCCTTTGGAATGGTGTAGG AAAAATGCAAGCCATCTCTAATAATAAGTC

TATTAAATTGGGAAAACTCCATCAATAAAT GTTGCAATGCATGATACTATCTGTGCCAGA

009

540

539

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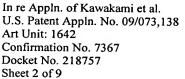
AGCAGACAGAGGACTCTCATTAAGGAAGG TGTCCTGTGCCCTGACCCTACAAGATGCCA Met Pro

592

479	420 AGACACCTGAGACATGCTGAAATTATTTCT CTCACACTTTTGCTTGAATTTAATACAGAC	420
419	GCTTATGAGAAACTCTCTGCAGAACAGTCA CCACCACCTTATTCACCTTAAGAGCCAGCG Ala Tyr Glu Lys Leu Ser Ala Glu Gln Ser Pro Pro Pro Tyr Ser Pro	360 103
359 102	GACAGCAAAGTGTCTCTTCAAGAGAAAAAC TGTGAACCTGTGGTTCCCAATGCTCCACCT Asp Ser Lys Val Ser Leu Gln Glu Lys Asn Cys Glu Pro Val Val Pro Asn Ala Pro Pro	300
299	CATGTTGGCACTCAATGTGCCTTAACAAGA AGATGCCCACAAGAAGGGTTTGATCATCGG His Val Gly Thr Gln Cys Ala Leu Thr Arg Arg Cys Pro Gln Glu Gly Phe Asp His Arg	240 63
239	ATCGGCTGTTGGTATTGTAGAAGACGAAAT GGATACAGAGCCTTGATGGATAAAAGTCTT Ile Gly Cys Trp Tyr Cys Arg Arg Asn Gly Tyr Arg Ala Leu Met Asp Lys Ser Leu	180
179	ACGGCTGAAGAGGCCGCTGGGATCGGCATC CTGACAGTGATCCTGGGAGTCTTACTGCTC Thr Ala Glu Glu Ala Ala Gly Ile Gly Ile Leu Thr Val Ile Leu Gly Val Leu Leu Leu	120 23
119	60 AGAGAAGATGCTCACTTCATCTATGGTTAC CCCAAGAAGGGGCACGGCCACTCTTACACC 119 3 Arg Glu Asp Ala His Phe Ile Tyr Gly Tyr Pro Lys Lys Gly His Gly His Ser Tyr Thr 22	3

FIG. 1







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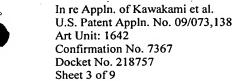
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FIG. 1 Continued

1319 1499 779 1019 1079 1139 1199 1259 1379 1439 719 839 899 959 AACCTTGACCGACATGAACTGTACACAGAA TTGTTCCAGTACTATGGAGTGCTCACAAAG TCTGCCCGCCTCAGCCTCCCAAAGTGCTGG AATTACAGGCGTGAGCCACCACGCCTGGCT GATACTTTTACAGGTTAAGACAAAGGGTTG ACTGGCCTATTTATCTGATCAAGAACATGT 1140 AGTAGAGGGGTTTCTCCATGTTGGTCA GGCTGGTCTCAAACTCCTGACCTCAGGTGA TACCTATGGCAATTTAGCTCTCTTGGGTTC CCAAATCCCTCTCACAAGAATGTGCAGAAG GGTAATGTTAGTAAATCCATGGTGTTATTT TCTGAGAGACAGAATTCAAGTGGGTATTCT AAATAAGTAAAAGCTACTATGTACTGCCTT AGTGCTGATGCCTGTGTACTGCCTTAAATG GCGCGATCTTGGCTCACCATAACCTCCGCC TCCCAGGTTCAAGCAATTCTCCTGCCTTAG GGATCCTATATCTTAGGTAAGACATATAAC GCAGTCTAATTACATTTCACTTCAAGGCTC AATGCTATTCTAACTAATGACAAGTATTTT CTACTAAACCAGAAATTGGTAGAAGGATTT GGGGCCATCCAATTTCTCTTTACTTGAAAT TTGGCTAATAACAAACTAGTCAGGTTTTCG CAGCAATGTCTCTTTGTGCTCTAAAATTCT ATTATACTACAATAATATTGTAAAGATC CCTCCTGAGTAGCTGGGATTACAGGCGTGC GCCACTATGCCTGACTAATTTTGTAGTTTT CTATAGCTCTTTTTTTTGAGATGGAGTTT CGCTTTTGTTGCCCAGGCTGGAGTGCAATG 1380 780 840 1440 1200 1080 1020







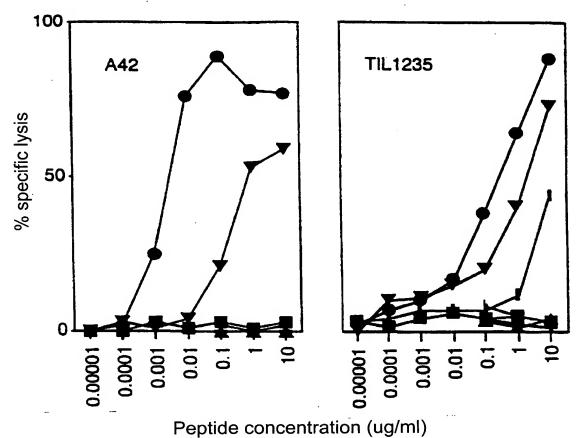


FIG. 2



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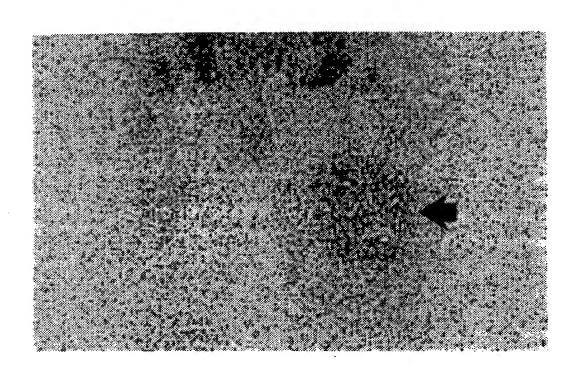


FIG. 3A





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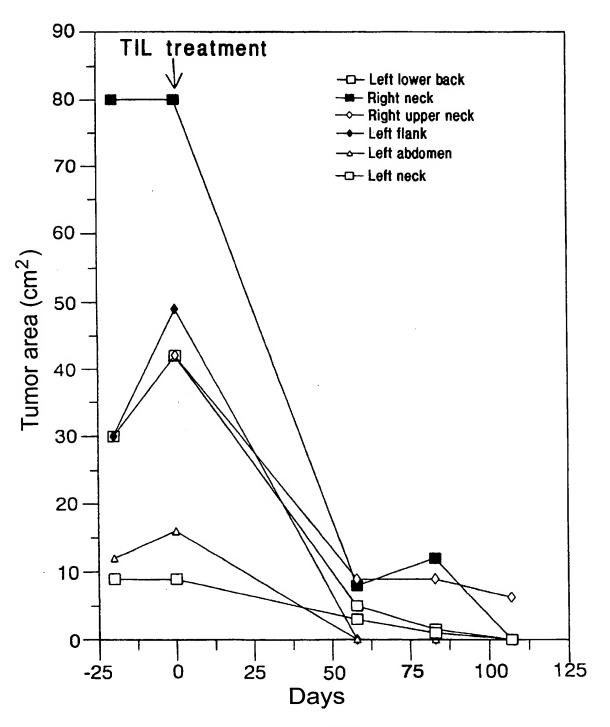


FIG. 3B



In re Appln. of Kawakami et al. U.S. Patent Appln. No. 09/073,138 Art Unit: 1642 Confirmation No. 7367 Docket No. 218757 Sheet 6 of 9

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GTCGACGGCC	ATTACCAATC	GCGACCGGGA	AGAACACA <u>AT</u>	40
<u>G</u> GATCTGGTG	CTAAAAAGAT	GCCTTCTTCA	TTTGGCTGTG	80
ATAGGTGCTT	TGCTGGCTGT	GGGGGCTACA	AAAGTACCCA	120
GAAACCAGGA	CTGGCTTGGT	GTCTCAAGGC	AACTCAGAAC	160
CAAAGCCTGG	AACAGGCAGC	TGTATCCAGA	GTGGACAGAA	200
GCCCAGAGAC	TTGACTGCTG	GAGAGGTGGT	CAAGTGTCCC	240
TCAAGGTCAG	TAATGATGGG	CCTACACTGA	TTGGTGCAAA	280
TGCCTCCTTC	TCTATTGCCT	TGAACTTCCC	TGGAAGCCAA	320
AAGGTATTGC	CAGATGGGCA	GGTTATCTGG	GTCAACAATA	360
CCATCATCAA	TGGGAGCCAG	GTGTGGGGAG	GACAGCCAGT	400
GTATCCCCAG	GAAACTGACG	ATGCCTGCAT	CTTCCCTGAT	440
GGTGGACCTT	GCCCATCTGG	CTCTTGGTCT	CAGAAGAGAA	480
GCTTTGTTTA	TGTCTGGAAG	ACCTGGGGCC	AATACTGGCA	520
ATTTCTAGGG	GGCCCAGTGT	CTGGGCTGAG	CATTGGGACA	560
GGCAGGGCAA	TGCTGGGCAC	ACACACCATG	GAAGTGACTG	600
TCTACCATCG	CCGGGGATCC	CGGAGCTATG	TGCCTCTTGC	640
TCATTCCAGC	TCAGCCTTCA	CCATTACTGA	CCAGGTGCCT	680
TTCTCCGTGA	GCGTGTCCCA	GTTGCGGGCC	TTGGATGGAG	720
GGAACAAGCA	CTTCCTGAGA	AATCAGCCTC	TGACCTTTGC	760
CCTCCAGCTC	CATGACCCCA	GTGGCTATCT	GGCTGAAGCT	800
GACCTCTCCT	ACACCTGGGA	CTTTGGAGAC	AGTAGTGGAA	840
CCCTGATCTC	TCGGGCACTT	GTGGTCACTC	ATACTTACCT	880
GGAGCCTGGC	CCAGTCACTG	CCCAGGTGGT	CCTGCAGGCT	920
GCCATTCCTC	TCACCTCCTG	TGGCTCCTCC	CCAGTTCCAG	960
GCACCACAGA	TGGGCACAGG	CCAACTGCAG	AGGCCCCTAA	1000
CACCACAGCT	GGCCAAGTGC	CTACTACAGA	AGTTGTGGGT	1040
ACTACACCTG	GTCAGGCGCC	AACTGCAGAG	CCCTCTGGAA	1080
CCACATCTGT	GCAGGTGCCA	ACCACTGAAG	TCATAAGCAC	1120

FIG. 4



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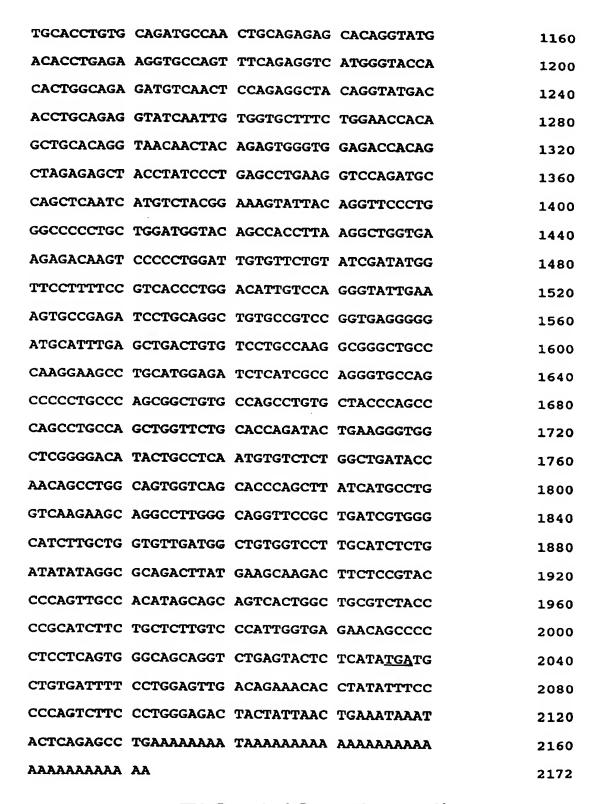


FIG. 4 (Continued)





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MDLVLKRCLL HLAVIGALLA VGATKVPRNQ DWLGVSRQLR TKAWNRQLYP 1 EWTEAQRLDC WRGGQVSLKV SNDGPTLIGA NASFSIALNF PGSQKVLPDG 51 101 QVIWVNNTII NGSQVWGGQP VYPQETDDAC IFPDGGPCPS GSWSQKRSFV YVWKTWGQYW QFLGGPVSGL SIGTGRAMLG THTMEVTVYH RRGSRSYVPL 151 AHSSSAFTIT DOVPFSVSVS OLRALDGGNK HFLRNOPLTF ALOLHDPSGY 201 251 LAEADLSYTW DFGDSSGTLI SRALVVTHTY LEPGPVTAOV VLOAAIPLTS 301 CGSSPVPGTT DGHRPTAEAP NTTAGQVPTT EVVGTTPGQA PTAEPSGTTS VOVPTTEVIS TAPVOMPTAE STGMTPEKVP VSEVMGTTLA EMSTPEATGM 351 401 TPAEVSIVVL SGTTAAQVTT TEWVETTARE LPIPEPEGPD ASSIMSTESI TGSLGPLLDG TATLRLVKRQ VPLDCVLYRY GSFSVTLDIV QGIESAEILQ 451 AVPSGEGDAF ELTVSCQGGL PKEACMEISS PGCQPPAQRL CQPVLPSPAC 501 QLVLHQILKG GSGTYCLNVS LADTNSLAVV STQLIMPGQE AGLGQVPLIV 551 GILLVLMAVV LASLIYRRRL MKQDFSVPQL PHSSSHWLRL PRIFCSCPIG 601 ENSPLLSGQQ V 651

FIG. 5A

Pmel17 ME20 gp100 cDNA25FL cDNA25TR						TLLSGQQV	
	M	V	Q	L			
	M	F	-			PPQWAAGLS	STLI
	1	162	236	274	588	649	

FIG. 5B

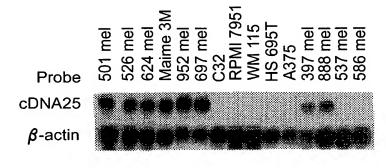




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Melanoma



Melanocyte

501 mel NHEM 493 NHEM 529 NHEM 530 FM 902 FM 906 HA 002

cDNA25

β-actin



Soft mel Adrenal Gland Brain Kidney Fetal Liver Liver Liver Lung Spleen Spleen Testis Thymus

FIG. 6

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